

WHAT IS CLAIMED IS:

1. Apparatus for improving an ad hoc temporary incident area network by adding recording capability, said network including a number of modules coupled to respective transceivers for establishing interoperability between the transceivers by converting signals from the transceiver to a common frequency and a common format, comprising:

a recorder within each of said modules for recording data obtained at each of said modules;

means at each module for uploading recorded data over the temporary incident area network to at least one node on said network; and,

storage at said node operably connected to said network for storing all the data transmitted over said network, thus to provide a complete stored history of the incident for which the temporary incident area network is established, thereby to provide redundancy for the recording performed at each of said modules and permitting readout of said recorded data for enhancing incident response.

2. The apparatus of Claim 1, wherein each portion of recorded data is time-stamped and wherein the time-stamped data is recorded at the storage at said node in the order in which it was received to provide a timeline-based stored history of the incident.

3. The apparatus of Claim 2, and further including a terminal at said node for displaying said stored data.

4. The apparatus of Claim 3, and further including a timeline generator for displaying a timeline on said display and for displaying recorded data juxtaposed to said timeline.
5. The apparatus of Claim 4, and further including at least one sensor at at least one module and means for coupling the output of said sensor to the recorder in said module.
6. The apparatus of Claim 5, wherein recorded data at the output of said sensor is transmitted over said network to said node for recording thereof, said recorded sensor data being displayed on said display juxtaposed to said timeline.
7. The apparatus of Claim 4, and further including a video camera at at least one of said modules having an output recorded at said module and means for streaming said video data over said network to said node for storage at said node.
8. The apparatus of Claim 7, and further including an icon for indicating the presence of stored video data on said display juxtaposed to said timeline and means for reproducing said stored video data responsive to selecting said icon, whereby the video data displayed corresponds in time to a time segment of said timeline.
9. The apparatus of Claim 1, wherein each of said modules records audio communications established by the corresponding transceiver and transmits the recorded audio communications over said network to said node, for recording in the storage thereat.

10. The apparatus of Claim 9, and further including means for reproducing the audio stored at said node.

11. The apparatus of Claim 10, and further including a terminal at said node having a display, an audio icon on said display representing the presence of stored audio communications from a predetermined module juxtaposed with a timeline, and a selector for outputting stored audio data from a selected module at a time corresponding to a selected time segment of said timeline.

12. A method for establishing post-incident analysis and training relating to an incident at which first responders respond, comprising the steps of:

establishing an ad hoc temporary incident area network having modules that intercommunicate, with each module coupled to an associated transceiver;  
recording data at each module relating to said incident;  
transmitting said data over said network to a node on said network;  
storing received data at said node; and,  
playing back stored data to establish what was happening at each of said modules in the course of responding to said incident.

13. The method of Claim 12, and further including time-stamping the data recorded at each of said modules, storing the time stamps along with the stored data, and reading out said stored data in timed sequence corresponding to the timeline of the incident.

14. The method of Claim 13 and further including the step of providing an incident commander terminal having a display at the node at which the data is stored and reading out the stored data at the incident commander terminal to the display to provide situational awareness for permitting the incident commander to assess the response to the incident and to further direct the first responders based on an analysis of the stored data.

15. The method of Claim 14, wherein the recorded data is taken from the group consisting of audio communications, image data, sensor data and location data.

16. The method of Claim 15, and further including the step of overlaying the displayed data with a map of the incident area and superimposing the position of first responders on the map.

17. The method of Claim 14, wherein the recorded data is taken from sensors and wherein the sensors are taken from the group consisting of position sensors, air quality sensors, radiation sensors, temperature sensors, oxygen tank sensors, biometric sensors and HAZMAT sensors.

18. Apparatus for providing a replay of data collected from an incident in which a temporary incident area network is established between modules coupled to associated transceivers, comprising:

recording units at each of said modules to record data collected thereat;  
means for downloading recorded data over said network to a node on said network;

storage at said node for storing data transmitted over said network; and, means for reading out said storage in a time sequence to provide a replay corresponding to the collected data at each of said modules, whereby an incident commander can be provided with a replay of conditions existing during an incident.

19. The apparatus of Claim 18, wherein said node includes an incident commander terminal having a display, and further including means for making the stored data available at said display in a timed sequence controllable by an individual thereat.

20. The apparatus of Claim 19, and further including a timeline presented on said display and means for presenting stored data that occurs within a given time interval associated with said timeline.